CLAIMS:

We claim:

1. A method for imaging the characteristics of an object by means of a measuring system, in which at least one of the measuring system and/or the object is moved in relation to one another in a predefined direction of movement, the object being moved in relation to the measuring system, in which method the object is illuminated by means of incident light, which has limited extension in the direction of movement, and light reflected from the object is detected by means of an imaging sensor arranged on the same side of the object as the incident light, the image-processing sensor converting the detected light into electrical charges, according to which a digital representation of the object is created, wherein the light is made to strike the object at a predetermined distance from the imaging sensor viewed in the direction of movement of the object, and that information on the geometric profile of the object and information on the light scatter in a predetermined area around the said profile is simultaneously read out from the digital representation.

2. The method according to claim 1, wherein the digital representation is divided up into rows and columns and that a compressed image is created from the digital representation by reducing the number of rows.

3. The method according to claim 2, wherein the number of rows is reduced by summation of the rows of the digital representation in columns in a predetermined order.

4. The method according to claim 3, wherein the summation is performed by analog means.

5. The method according to claim 3, wherein the summation is performed by

digital means.

6. The method according to claim 3, wherein in the summation by columns information on the row at which the electrical charge exceeds a predetermined threshold value, indicating that reflected light is detected just in that row, is saved for each column.

7. The method according to claim 2, wherein the compressed image is created by saving for each column the maximum value for the pre-selected rows.

8. The method according to claim 1, wherein in addition to information on the geometric profile of the object and the light scatter, information on the intensity distribution is also read out from the digital representation.

9. An arrangement for representing the characteristics of an object by means of a measuring system, in which either the measuring system or the object is designed to move in relation to one another in a predefined direction of movement, the object being designed to move in relation to the measuring system, which arrangement comprises at least one light source designed to illuminate the object with a light which is incident upon the object and has a limited extension in the direction of movement, the arrangement further comprising an imaging sensor, which is arranged on the same side of the object as the light source and is designed to pick up light reflected from the object and to convert this into electrical charges, an image-processing unit being designed to create a digital representation of the object from said electrical charges, wherein the light source is arranged at a predetermined distance from the imaging sensor viewed in the direction of movement, and that the image-processing unit is designed to simultaneously read out information on the geometric profile of the object and information on the light scatter in a predetermined area around said profile.

10. The arrangement according to claim 9, wherein the digital representation is divided into rows and columns and that the image-processing unit is designed to create a compressed image from the digital representation by reducing the number of rows.

11. The arrangement according to claim 10, wherein the image-processing unit is designed to reduce the number of rows by summation of the rows of the digital representation in columns in a predetermined order.

12. The arrangement according to claim 11, wherein the image-processing unit is designed, in the summation by columns, to save for each column information on the row at which the electrical charge exceeds a predetermined threshold value, indicating that reflected light is detected in that row.

13. The arrangement according to claim 9, wherein the incident light is linear.

14. The arrangement according to claim 9, wherein the incident light consists of a plurality of points or linear segments.

15. The arrangement according to claim 10, wherein the image-processing unit is designed to create the compressed image by saving for each column the maximum value for the pre-selected rows.

16. The arrangement according to claim 9, wherein in addition to information on the geometric profile of the object and the light scatter, the image-processing unit is also designed to read out information on the intensity distribution from the digital representation.